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HAVE SURGEONS BEEN MISTAKEN AS TO THE NATURE OF FRACTURES OF THE BASE OF THE RADIUS? MEDICO-LEGAL BEARINGS OF THE ANSWER.

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The object in writing this paper is to establish scientific truth, to lay a foundation for correct practice, and to aid in defending the surgical profession against unjust suits at law for malpractice. It is safe to say that the truth is better than any man; but if the false has been made to seem to be true, and thereby one reputable surgeon has been unjustly ruined in reputation and prospect, it is also safe to say that the responsibility of his ruin rests with those who have, perhaps without intention, made the false seem true. And hence we may say that any man is better than that which is false in surgical science.

In this spirit I must proceed to do what has been, by the combination of various circumstances, imposed on me as a simple and imperative duty. And this is my only apology for taking up valuable time with a subject that has been so long threadbare.

In descriptions of the forearm it is convenient to use such terms as will convey the same meaning, no matter what position the forearm may occupy in regard to the body. Hence a few definitions may be made at the outset.

Let the forearm be in any position—

1. *Outward* means from the ulnar to the radial side of the forearm.
2. *Inward* means from the radial to the ulnar side of the fore-arm.
3. *Backward* means from the palmar to the dorsal aspect of the forearm.
4. *Forward* means from the dorsal to the palmar aspect of the forearm.
5. *Upward* means from the wrist joint toward the elbow.
6. *Downward* means from the elbow toward the wrist joint.
7. The *transverse* diameter of the forearm is from side to side.
8. The *conjugate* diameter of the forearm is forward and backward.

These definitions will apply to the base of the radius, as well as the forearm. And it is proper to define the base of the radius, since our object is to consider the fractures of this part of the radius.

Now, I have more than once pointed out that the compact tissue of the shaft of long bones is expanded into the plates of the cancellous tissue of the articular ends. This fact is beautifully exhibited in the base of the radius by various sections made with a saw. The sections are made in three directions, namely—

1. Several sections are made transversely to the axis of the articular surface of the base of the radius.
2. Several sections are made in the axis of the radius and in the transverse diameter from below upward.
3. Several sections are made in the axis of the

radius, and in the conjugate diameter from below upward.

These sections are all made in the base of the radius, and show the following facts, namely—

First. The compact tissue of the shaft of the radius begins to expand into the cancellous tissue of the articular end, sometimes about two inches above the wrist joint; sometimes about one and one-half inch above the wrist joint; and sometimes about one inch above the wrist joint. And for the sake of convenience we may call the distal end of the radius, that is more or less made up of cancellous tissue, *the base of the radius*. Hence, the base of the radius may be from less than one inch to about two inches in length, according to circumstances. The average length of the base of the radius is about one and one-fourth inch.

Second. There is a layer of quite firm compact tissue, about one-eighth of an inch thick, making up the distal articular surface of the radius. This is the bottom of the base of the radius.

Third. From this layer of compact tissue upward, a distance of about three-eighths of an inch, the base of the radius is nearly all cancellous tissue, the compact tissue being very thin.

Fourth. But the compact tissue, even in the part of the base of the radius just described, begins to be thicker on the anterior than on the posterior surface.

Fifth. At a distance of five-eighths and six-eighths of an inch from the wrist joint the compact tissue on the anterior surface of the base of the radius is about one-sixteenth of an inch thick, while the compact tissue on the internal surface is quite thick, and the compact tissue on the posterior surface is beginning to be thicker.

Sixth. At a distance of about one and one-half inch from the wrist joint, the compact tissue of the base of the radius is nearly of uniform thickness on all sides of the bone.

Seventh. Sometimes at a distance of about two inches from the wrist joint the compact tissue of the shaft of the radius begins to expand into cancellous tissue, and is quite uniform in thickness on all sides of the bone.

Eighth. There is more cancellous tissue on the posterior side than on the anterior side of the base of the radius.

The following statements, based on actual measurements of the base of the radius, may now be made, namely—

(a) Pass a plane through the axis of the shaft of the radius and parallel with a plane passing through the transverse diameter of the base of the radius; about three-fourths of the articular surface of the base of the radius will be in front of this plane.

(b) Pass a plane through the axis of the shaft of the radius, and parallel with a plane passing through the conjugate diameter of the base of the radius; about two-thirds of the articular surface of the base of the radius will be internal to this plane.

(c) The articular surface of the base of the radius has a double obliquity; (1) inward, and (2) forward.

The following table of five cases of measurement of radii, taken at random, will afford a fair indication of the double obliquity of the distal articular surface of the radius:—

| NO. | INWARD OBLIQUITY. | FORWARD OBLIQUITY. |
|-----|----------------------|-----------------------|
| 1 | 10° | 10° |
| 2 | 20° | 15° |
| 3 | 10° | 10° |
| 4 | 15° | 15° |
| 5 | 10° | 10° |

From this table may be drawn the following approximate conclusion, namely: The inward and forward obliquity of the distal articular surface of the radius to the axis of the shaft is from ten to fifteen degrees.

There are some points of importance, relating to the functions of the wrist joint, to be considered in this place: (1) The hand can be flexed nearly to a right angle with the forearm. (2) The hand can be extended nearly to a right angle with the forearm. (3) The hand by lateral ginglymus can be bent inward on the forearm, so as to make an angle of about forty-five degrees with the ulna. (4) The hand by lateral ginglymus can be bent on the forearm, so as to make an angle of about twenty-five degrees with the radius. (5) The hand has but very little rotation on the forearm. (6) The hand can perform considerable circumduction on the forearm. The above motions are supposed to be done by volition. The extent of the motions may be increased by the application of external force; and the rotation of the hand on the forearm can be largely increased by this means. And in some cases the hand can readily be pushed backward so as to make the arc of extension greater than ninety degrees.

The contractile force of the muscles that flex the hand is greater than the contractile force of the muscles that extend the hand, as can be proved by experiments on the living forearm and on the dead forearm, and by mechanical considerations. And the resistance the flexors can make to extension of the hand is greater than the resistance the extensors can make to the flexion of the hand. The muscular resistance to extension of the hand is increased by certain mechanical relations, found in the forward projection of the points of insertion of the muscles that flex the hand. But the general dynamic effects upon the base of the radius caused by forcible extension of the hand may be described under the following heads, namely—

1. The whole hand will represent a lever, which may be called the hand lever.

2. The base of the radius will be the fulcrum on which the hand lever rests.

3. The long arm or the power arm of the hand lever will be the distance from the point of greatest pressure on the base of the radius to the ends of the fingers.

4. The short arm or the weight arm of the hand lever will be the distance from the point of greatest pressure on the base of the radius to the points of insertion of the resisting muscles, modified by the position of the anterior ligament of the wrist joint.

5. Approximately stated, the length of the long arm of the hand lever is about six inches; and the length of the short arm of the hand lever is about one inch.

6. The power and the weight will, therefore, have the ratio of 1 : 6.

7. The power will be the extending force applied to the hand.

8. The weight will be the contractile energy of the flexible muscles.

9. The pressure on the fulcrum, or the base of the radius will exactly equal the sum of the power and the weight. It will be the sum of the extending force and the contractile energy of the resisting muscles, and possibly plus the resistance of the anterior ligament of the wrist joint.

10. The principal component of the muscular contraction acts in the direction of the axis of the shaft of the radius, and, under the conditions named, in the direction of the axis of the base of the radius.

11. It is generally admitted that muscular contraction can and has broken various bones of

the body. This takes into account the great power of contracting muscles, and also the possible fragility of bones.

12. Now add to the muscular force the extending force applied to the hand, and we have a pressure that may at times fracture the base of the radius. Suppose, for instance, that a force of fifty pounds is applied to the power end of the hand lever; the force that is applied to the weight end of the hand lever will be 300 pounds, and the force that presses on the base of the radius will be 350 pounds. And if 100 pounds of extension be applied to the power end of the hand-lever, there will be a pressure of 700 pounds on the base of the radius.

Some facts relating to accidents must be introduced now. A patient falls on the palm of the hand. Two dynamic conditions are apt to supervene, in the following order, namely: (1) When the power end of the hand lever begins to meet a resisting surface, the flexing muscles of the hand begin to contract, and the carpus is pressed against the base of the radius, with more or less force, according to the power of the contracting flexors. And the hand will not ordinarily be extended beyond a right angle, so that at present the anterior ligament of the wrist joint may not be taken into account. (2) Consecutively and unavoidably the carpus will meet the resisting surface; of this fact there can be no doubt whatever. The downward and forward motion of the carpus will be arrested, and the downward and forward motion of the base of the radius will be arrested. But the shaft of the radius has a similar motion, and that will be arrested also. Now the reaction of the resisting surface will drive the carpus against the base of the radius, which will be driven against the descending radial shaft. The force of the reaction, which will be equal to the action, will, in a typical case, be upward, backward, and outward. And this reaction will instantly follow, and be more or less combined with the pressure of the hand-lever. The pressure and the reaction will be exerted on the base of the radius.

The facts of structure and function, as well as the mechanical considerations that have already been enumerated, have an important bearing on the causation, the seat, and the direction of fractures of the base of the radius. And let me note in this place, that different writers have given different accounts of these fractures. But it is quite generally agreed that

the base of the radius is ordinarily broken near the wrist joint. And I may add in this connection, that the fracture named after Colles is found, according to different observers, from a few lines to more than one and one-half inches above the articular surface of the base of the radius. In this general way will the phrase *Colles fracture* be used in this paper.

In regard to fractures of the base of the radius, the following general statements may be made, namely:—

1. It is very difficult at times to make out the seat and direction of a recent fracture, especially when the fracture is near a joint, as is the case in Colles fracture. And we may say, that it is sometimes impossible to make out certainly the seat and direction of a recent fracture.

2. When the soft parts are "thin," and there is no swelling, it is not difficult to determine the seat and direction of a recent fracture.

3. It is generally known that there is a great diversity of opinion among surgeons as to the seat and direction of Colles fracture in recent cases on the living subject.

4. Yet it must be, that the gentlemen who have made statements in regard to the seat and direction of Colles fracture have been good observers, and have quite correctly put on record what they have seen. They may have made some mistakes, but they cannot be all wrong always.

5. It is possible that good observers have been, in the main, near the truth in the records of their own observations of the seat and direction of Colles fracture.

6. This would only show that different observers had seen and described different facts. And, for this reason, it would not be necessary to reconcile different views of the pathology of Colles fracture. One who has seen only white horses cannot say that all horses are white; and one who has seen only black horses cannot say that all horses are black; somebody else may have seen a few gray horses.

7. The fact is, that fractures of the base of the radius, and also Colles fractures, have a various pathology, as can be shown by evidence that ought to satisfy any surgeon.

8. It is easy for the surgeon to make out the seat and direction of a recent fracture by a careful post-mortem examination.

9. Our knowledge of the seat and direction of Colles fracture, derived from post-mortem ex-

aminations of recent cases, would be exact and reliable.

10. It does not often happen that a patient having Colles fracture has been so severely injured as to cause death. And so only a few cases of Colles fracture have had a post-mortem examination.

Now, before considering some cases of post-mortem examination of Colles fracture, I will briefly as possible describe two fractures of the lower end of the radius, as follows, namely.

During the spring of 1878 two cases of fracture of the lower end of the radius came to my clinic and were treated by me:—

CASE 1.—The first patient was forty-five years of age, born in Holland, and had been married about two years at the time of the accident. He had been a nurse, but was a laborer on a railroad when he broke his radius. He was lifting an iron rail with his hands, when he felt something give way in his right forearm. His right radius was broken nearly transversely, not quite two inches above the wrist-joint. The measurement could be made with exactness, because the bones were prominent and there was no swelling. If there was any displacement, the distal end of the upper fragment was forward and inward. There was no apparent shortening of the radial side of the forearm, the hand not falling to the radial side; and the forearm was somewhat flexed and pronated.

The measurements of this patient's lower limbs are recorded in my tables on shortening of the femur. The left lower limb was one and three-eighths inches longer than the right lower limb. On measuring them, the bones of the left upper limb are found longer than the corresponding bones of the right upper limb. This fact seems to point to a defect of development in the patient's bones on the right side. The right radius is broken, and the inference is that the fracture would not have occurred if the bone had been well developed. The right radius was incompetent to sustain a powerful voluntary effort of the flexing and pronating muscles of the hand and the forearm. We may suppose that the strong muscles on the palmar side of the arm and the forearm were suddenly contracted in the attempt to lift the iron rail, and while the hand was kept from flexing at the wrist joint by the weight of the iron rail, the carpus being pressed against the base of the radius, the flexing force of the muscles of the arm and the forearm, especially the pronator

radii teres, the biceps brachii, and the brachialis anticus, was competent to break the radius as described, so that the fracture was the result of muscular contraction under the conditions named. This fracture could not be called a Colles fracture, being rather too far from the wrist joint. It occurred at the upper limit of the base of the radius.

CASE 2.—A seaman, twenty-eight years of age, born in Germany, fell on the floor of a ship, striking on the palm of the right hand. He came to my clinic the next day, presenting the following appearances, namely: there was no swelling of the soft parts; there was some pain; there was no crepitus; there was no shortening of the radius; the transverse diameter of the distal end of the right forearm was one-fourth of an inch greater than the transverse diameter of the distal end of the left forearm, indicating that the carpal bones had split the base of the radius like a wedge, as was found in the autopsy of the case reported by Professor Bigelow. Accordingly, it was concluded that there was a longitudinal fracture of the base of the radius. This fracture could not be called a Colles fracture, and yet the force causing it might have produced a characteristic Colles fracture.

Let us now bring forward some cases of post-mortem examination of recent fractures of the base of the radius, pointing out such as may be called Colles fracture.

CASE 1.—Professor H. H. Hamilton, in his work on fractures and dislocations, relates the case of M. Lenoir, who supposed his patient had a dislocation of the hand backward. But the patient died, when an autopsy showed that a considerable fragment had been broken from the posterior lip of the articular surface, the line of fracture being from below upward and from before forward.

CASE 2.—Professor Erichsen dissected and carefully examined a fracture of the base of the radius of a woman, who died twelve days after the injury. "The lower fragment was split into three portions, between which the upper fragment was so firmly impacted, to the depth of more than half an inch, as to require some force in its removal. The three portions into which the lower fragment was split were of very unequal size; the two posterior ones being small, consisting merely of scales of bone; the third fragment the largest, comprising the whole of the articular surface of the radius,

which was somewhat tilted upward and backward, carrying the hand with it. To this fragment were attached the supinator longus, and the greater part of the pronator quadratus; the ligaments and the capsule of the joint were uninjured."

CASE 3.—Professor Erichsen also relates the following case, namely, "A man, sixty-four years of age, fell to the ground from a height of twenty-five feet. In his fall he broke his left radius just above the wrist, but also met with such severe injuries of the pelvis and abdomen that he died in an hour after admission to the hospital. On carefully dissecting the arm, about twenty-four hours after death, I found that the radius was fractured transversely, about half an inch above its lower articular end, and the lower fragment was completely comminuted."

CASE 4.—Says Professor Gross, in his work on surgery: "In the case of a young man whom I attended along with Dr. Chenoweth, the lower extremity of the radius was split in two by a transverse and an oblique fissure, the larger fragment being completely detached, and thrown forward and inward over the ulna, whence, as it was impossible to replace it, I removed it by incision." This case, because of the examination at the time of the operation being exact and certain, may be included with post-mortem examination of fractures of the base of the radius.

CASE 5.—Again says Prof. Gross: "In my private collection is a specimen of transverse fracture of the radius, extending into the joint, and detaching the head [part of the base] of the bone by several small, vertical fissures. In this case I had an opportunity of dissecting the parts, in consequence of the removal of the forearm, above its middle, by another surgeon, several weeks after the occurrence of the accident." This case, for obvious reasons, may also be included in post-mortem examinations of the base of the radius.

In the *Medical Record*, for April, 1870, Prof. E. M. Moore describes the post-mortem appearances of two recent fractures of the base of the radius, occurring in the same patient. "In May, 1869, Mary Tumey, aged 45, in a paroxysm of insanity, threw herself from the third story window of St. Mary's Hospital, striking the ground with both hands, receiving also a blow on the spine, opposite the second and third dorsal vertebrae. The spinal cord was crushed, and

both wrists broken, producing Colles fracture. She breathed but twenty minutes."

CASE 6.—The examination of the right forearm of Mary Tumey, after the fall, showed a transverse fracture of the base of the radius. The lower fragment was about one-half inch in length, and its broken end was riding on the periosteal surface of the back of the distal end of the upper surface, without the slightest impaction. Crepitus was absent. And the internal lateral ligament of the wrist-joint was torn from the styloid process, separating the scale of compact bone composing the end and inner surface.

CASE 7.—The examination of the left forearm of the same individual showed a fracture of the base of the radius oblique in two directions. "Commencing within a quarter of an inch of the wrist joint, on the palmar surface, the line ran back to three-fourths of an inch, inclining to the ulna." Did the lower fragment ride on the upper fragment, as that of the right radius did, at a right angle to the shaft? It can be understood how the oblique broken end could ride on the back of the upper fragment. And this is probably the meaning of Professor Moore's description. The left internal lateral ligament was ruptured, separating more bone than on the right side.

Dr. Hector Cameron, of Glasgow, has made post-mortem examinations of two recent cases of Colles fracture. The description of his cases is taken from the MEDICAL AND SURGICAL REPORTER, as follows:—

CASE 8.—The fracture was transverse, from side to side, and oblique, upward and backward. As to the lower fragment, the length of the anterior surface was about one-fourth of an inch, and the length of the posterior surface was about one inch. The lower fragment was somewhat comminuted, and the broken surface of the upper fragment was extremely rough and denticulated. A toothed projection on the upper fragment so held the lower fragment in its new position, upward and backward, that it could not be reduced, except by great force.

CASE 9.—In the second specimen the fracture was transverse, and about one inch above the articular surface of the bone. In front the break was hardly complete, the periosteum holding the fragments together, but allowing them to bend at an angle there, as upon a hinge, so that the lower fragment is tilted backward and upward, its articular surface

being turned backward, upward and outward. On the posterior aspect the fracture was complete, and the dense outer covering of the upper fragment was driven firmly into the substance of the lower, splitting it into three fragments, which held closely and securely together. The impaction was complete and irremediable. Although firm extension improved matters, it did not unlook this connection between the two fragments on the back of the bone.

Now, there can be no doubt about the seat and direction of the fractures of the base of the radius above described, unless we throw doubt on the honesty and accuracy of the reporters; and this we are not justified in doing. From the descriptions may be drawn the following conclusions, namely:—

1. There are nine cases of fracture of the base of the radius above recorded.
2. Eight of these fractures are called Colles fracture by the reporters; two by Professor Erichsen; two by Professor Gross; two by Professor Moore, and two by Dr. Cameron. The other reminds one of the fracture described by Dr. Barton.
3. In one case an oblique piece was broken from the posterior lip of the base of the radius.
4. In two cases the seat of the fracture was one-half inch from the articular surface of the base of the radius.
5. In two cases the seat of the fracture averaged about one-half inch from the articular surface of the base of the radius.
6. In one case the seat of the fracture was three-fourths of an inch from the articular surface of the base of the radius.
7. In one case the seat of the fracture was one inch from the articular surface of the base of the radius.
8. In two cases the seat of the fracture was not recorded, but, judging from the descriptions, it must have been very near the articular surface of the base of the radius.
9. The average length of the lower fragments of eight cases of Colles fracture was about $\frac{1}{4}$ of an inch. This is nearly one inch short of the estimate of Colles himself.
10. Two fractures were completely transverse.
11. Two fractures were both transverse and oblique.
12. One fracture was simply irregular, but probably somewhat transverse.
13. One fracture was irregular and vertical.

14. Three fractures were oblique; one was oblique in two directions.

15. There were three fractures impacted.

16. There were six fractures that were not impacted.

17. There were six fractures in which there was more or less comminution.

It may be claimed that the cases of fracture above enumerated were caused by extreme violence; and yet this point cannot be urged, because the reporters do not mention extreme violence as a cause; and because, when death occurred, it was from injury to more vital parts of the body; and because clinical observation, from time to time, shows cases of fracture of the base of the radius, in which have been found impaction, comminution, obliquity and marked deformity. On any supposition as to violence of cause, eight of the cases were claimed by the reporters as Colles fracture.

(To be Continued.)

A STUDY OF THE DIGESTIVE DISORDERS OF INFANCY.

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I think that most of my readers whose practice has brought them much in contact with children have noticed that of all the hereditary predispositions there are none that show themselves earlier than those terminating in the varieties of dyspepsia, whether from imperfect assimilation or imperfect secretion. I feel convinced that many cases of the various digestive disorders of children, so often said to depend upon improper food, are, in reality, due to imperfect digestive capacity, which renders food, however inert, irritant, by decomposition or fermentation. Who has not noticed the pale, half-nourished infants of literary dyspeptics, with their frequent indigestions, though fed, with a zealous care, on the most nourishing and simplest of food! They are martyrs to flatulence and acid dyspepsia, exhibiting, from the first hour of their birth, peculiarities acquired by their parents and transmitted to them.

I go still further, by attributing many of the diseases that show themselves later in life, particularly those of the tubercular and scrofulous diatheses, to mal-assimilation in infancy, from hereditary or acquired disturbance in

nutrition. I think this point deserves more than a passing notice. So much has been said upon the choice of food for infants, but so little stress is laid upon the preparation of those materials in the alimentary canal of the child that will insure the proper digestion and absorption of all the required varieties of food; in other words, so little has been said of the disturbance of secretion in childhood and how to correct it.

If we lay down the rule that all children are to be fed upon that food which, judged by experience, is *easiest* of digestion, we will invariably fall into the error of omitting some important element of diet, which, though destined by nature to nourish and strengthen, cannot reach the tissues, on account of some digestive deficiency.

This is easily understood if we take an example. Suppose an adult with phthisis is incapable of digesting fats. We do not on that account exclude at once all fatty food, but we use every means to aid him by supplying those elements that are essential to the digestion of oily food. If a child is unable to digest cow's milk, and we give condensed milk that is deprived of oil, etc., we simply avoid the difficulty by a sin of omission; the child will not suffer from a digestive disturbance, but will die of inanition. It would be like feeding a laboring man on dry toast and tea, whose gastric powers were too weak to digest meat, but whose tissues demanded its support. But then, again, we might supply all the nourishment that nature and art teach us are necessary for the maintenance of health and growth, and if imperfect absorption, or none at all, takes place, and some of the elements pass off unchanged, or are fermented or decomposed, it would have been better had they been omitted altogether. From this we see that we are not alone to look to the food in remedying the disturbances of early childhood, but we are to see that each element to be used in nutrition is *supplied, digested and absorbed*. The reason, I believe, that we find in the market so many varieties of infants' food is the desire to avoid certain constituents of mothers' milk, which, though absolutely necessary for nutrition, are difficult of digestion; the almost invariably absent ingredient is the oil.

Let us for a moment study the condition of the secretion in early childhood. The glands of the mouth, in infancy, seem to

have little to do in the digestive process. As far as we know, the function of the liver is one of the most important, aiding the absorption of oils, checking decomposition and fermentation, and increasing the peristaltic action of the intestines. The pancreatic juice emulsifies the oil, aids the digestion of the milk curds, and is in other ways important. The child in health can then easily digest all the constituents of its mother's milk, but disturb one of these secretions, and that constituent of milk upon which it acts will fail to be digested, and will act as an irritant.

The excessive delicacy of the nervous system in infancy will cause the slightest reflex disturbance in the digestive canal, whether the cause be teething, blood poisoning, improper food, or uncleanness, each one acting in its own peculiar way, aided by the inherited or acquired weakness of the digestive system of the child. The excessive heat of summer, with the poisoned city air, acting upon the nerve centers, will send a reflex influence that will check the action of the intestinal glands, arrest the activity of the liver. The saccharine food will develop acidity, the undissolved curds will remain as irritants or undergo decomposition, causing an increase in the secretion of mucus, part of which will ferment, and the rest will be made evident by its appearance in the stool. The passages will then assume a curdled, watery appearance, containing oil and mucus; they will be accompanied by pain, and voided continually. These stools are acid from the fermentation of the food and the mucus. So suddenly, indeed, has the arrest of secretion allowed the development of gases to take place in the stomach by fermentation, that enormous distention of this organ has caused a convulsion to be the only evidence of it. Relief in such cases has followed the introduction of a gum catheter into the stomach, resulting in the expulsion of gas. Reflex irritation seems to develop *two** distinct forms of infantile diarrhoea, the one pre-eminently dependent upon teething, and showing itself in general nervous irritability, sleeplessness, very acid eructations and vomiting, frequent white or very light, yellow-colored stools, oftentimes containing mucus and sometimes assuming a constant or subacute type; the other more probably dependent upon high temperature and blood poisoning, having marked

cerebral symptoms, with constant vomiting, little acidity, little flatulence, great pain, and frequent, thin, watery, dark-green stools, containing mucus and blood, in fact, frequently being almost black in color, composed of serum and altered blood corpuscles. In midsummer both these varieties may be combined. In a large number of cases I have had the stools tested by litmus paper, and my report shows that though acid in the former variety, the reaction was alkaline in the latter. I believe the alkalinity to be dependent upon serum that exudes from the engorged capillaries, due to vaso-motor paralysis. An examination of the passages of children in health shows very slight alkalinity. Attributing, then, all the diarrhoea of children to three causes, namely, *improper feeding*, of which I shall not now speak, *reflex arrest of secretion* and *intestinal catarrh* (this latter may be the result of the reflex irritation, or it may be due to the presence of undigested food), I regard the matter of treatment as far more simple than a glance at our text books would lead us to suppose.

The first of these causes is easily obviated by attention to diet. The second, occurring as it most usually does in early summer, in our large cities, requires fresh air, attention to the skin, frequent bathing, cold sponging, and light clothing, with ice to the inflamed gums, if needful, before any medicinal treatment will be of avail. Lessen the reflex irritability by means of the bromides, particularly those of potassium and ammonium, and having once prevented the further action of the cause, re-establish the normal secretions within the intestinal track. The association of teething with the various digestive and nutritive disorders of children, is certainly complete, if, indeed, they are not dependent upon one another, as some authors refuse to believe. It may be that teething renders a child extraordinarily vulnerable to outside influences, but I believe that they are more closely connected. Should the case come to us in which intestinal catarrh has been fairly established, our treatment will depend upon which of the two varieties before mentioned we have to deal with. Suppose, for instance, the child be brought to our notice with the following symptoms: a diarrhoea that has lasted several days, of from six to twelve passages a day. The stools are light-yellow or white, watery, curdled and containing considerable mucus. There is pain, described as colicky, which has

* The one usually described as entero-colitis; the other as cholera infantum.

lasted from the commencement, with flatulence. The child has vomited almost immediately after nursing. It has been fed on milk which has heretofore agreed with it; the matter vomited has been extremely acid, and composed almost entirely of curdled milk. The mouth is dry, the tongue coated with a white fur. Emaciation is beginning to show itself. Our first endeavor should be to discharge from the bowel the decomposing curds and mucus, and to re-establish the secretion of the various glands. Often repeated doses of the emulsion ol. ricini, with or without the addition of creasote in minute doses (depending upon the fetidity of the stools), are indicated when the stools are lumpy and mucoid, and when there is much straining; this may be followed by injections of starch water, to act directly upon the mucous membrane of the rectum; otherwise minute doses of calomel with bismuth in full doses, and with or without rhubarb, should be used from the start. It would be folly to attempt to feed a child in this condition upon its usual diet; give pieces of ice to such, if the thirst is excessive; give condensed milk or cow's milk boiled, freely diluted with barley, or rice water; substitute weak beef tea, if the child's stomach will bear it; avoid sugar in any form, and all varieties of solid food. The stools are acid, and the endeavor should be to neutralize the acidity, and to prevent further fermentation. If the diarrhoea should still continue it can be checked by chalk mixture, or preferably the use of large doses of bismuth and soda, in acacia mucilage. Indeed, "soda mint" has acted admirably in many cases. Within the last year my attention has been called to the use of salicylic acid in these cases. I have used it in the following formula, in these acid diarrhoeas.

R. Acid salicylic
Spts. ammon. aromat., q.s.
Aq. menth. pip. M.

Sig.—Beginning with half-grain doses three or four times daily for a child a year old. It may be used in powder with bismuth.

Of the other variety of diarrhoea, I may cite the following as an example. A child is brought in this condition; sudden and profuse diarrhoea, with or without vomiting, has set in, attended with more or less rise in temperature. The stools soon become dark green and very watery; there is scarcely any flatulence, but the child cries with incessant pain, which soon gives evi-

dence of a cerebral origin. The stools may be alkaline; I have previously suggested a reason, which I think plausible. In such cases it has been found that the only certain and effectual treatment, after making use of the hygienic measures before suggested for such cases, is the acid one, the free use of the diluted mineral acids associated with very small doses of morphia and brandy, p.r.n. If necessary, nuxvomica, gallic acid, or even ergot, may be added to the mixture. The acids will quickly alter the character of the stools, and their use must be abandoned as soon as they neutralize the excessive alkalinity. The child may be nursed in mild attacks, particularly, if it is very young; otherwise, use condensed milk, or cows milk, diluted, warm and *fresh*. Lime water seems to be injurious, as would be supposed. It may be necessary to give at the commencement a small dose of castor-oil, to empty the bowels and to relieve the capillary engorgement, before using the acids. The bromides are indicated, and cold sponging with acidulated water is also of great advantage.

For internal treatment dilute nitro-muriatic acid is, probably, preferable to any other form, particularly after the very acute part of the attack, on account of its action on the secretions. Aromatic sulphuric acid is decidedly the best in other cases, being most astringent, and should be used where the stools are dark and frequent. Dilute phosphoric acid may be ordered where there is much exhaustion. I have expressed myself highly in favor of condensed milk, partly because it is easy of digestion, on account of the absence of oil; also because there is no danger of it forming large and irritant curds. But when it is used the oil must be supplied in another way.

The rubbing of cod oil has been followed by such excellent results that I again * desire to call attention to it. In all the cases that I thought it advisable to recommend condensed milk, I have invariably found the treatment defective unless associated with the outward application of some of the oils, preferably cod oil, though I may say that cocoanut oil † may be substituted if the odor of the former is too objectionable.

I quote a few cases from my note book to show how much gain can be expected.

A. B., aged two years, delicate from birth,

* See Philadelphia Medical Times.

† As recommended by Dr. S. Weir Mitchell.

was brought to the hospital unable to walk, emaciated, from continued diarrhoea. No measurements taken. After two months of cod-oil rubbing, this child grew strong and hearty.

C D., aged three years, very delicate child. After an attack of scarlatina became emaciated and dyspeptic. On the 9th of August, 1876, ordered nothing but beef juice, condensed milk, and cod-oil rubbing. On August 27th the child weighed $24\frac{1}{2}$ pounds. On September 18th weight was $29\frac{1}{2}$ pounds, and after this improvement continued.

E. F., age thirteen months; rapid emaciation following entero-colitis. Placed on condensed milk and cod-oil rubbing. August 23d, weight 14 pounds. October 10th, weighed $17\frac{1}{2}$ pounds.

G. H., aged thirteen months, with same history as last. On September 4th, 18 pounds. September 12th, after treatment, weighed 19 pounds.

J. K. This child was brought to the hospital so weak as to be almost moribund. The emaciation was excessive, and the diarrhoea was continuous. Small doses of brandy and sulphuric acid were administered. Condensed milk freely diluted, and beef juice given at intervals. Cod-oil rubbing twice daily. On September 10th, the date of application, this child weighed 14 pounds. On September 26th, its weight was 16 pounds and 2 ounces. Within a few weeks the child walked into the clinic room strong and active.

These few cases will serve, I think, to show the value of this form of treatment.

The following cases, taken from my note book, will illustrate the above paper.

August 2d. Girl, fifteen months; sick four weeks; four or five passages a day, green and watery. Diagnosis, atony from entero-colitis. Ordered nitro-muriatic acid diluted with tincture nux vomica, in syrup. August 18th, returned as well.

August 2d. Child, nineteen months; sick three days; eight passages, light green, slimy; ordered emulsion ol. ricini. August 6th, stools free from mucus; ordered soda bicarbonate, pulv. rhei, pepsin. August 18th, reported as well.

August 3d. Aged eleven months; slight vomiting; passages dark green and very watery; ordered aromatic sulphuric acid and brandy. August 5th, passages solid, natural; no vomiting; well.

August 24th. Aged thirteen months; watery, light yellow stools; frequent vomiting; tried sulphuric acid mixture. August 27th, passages still acid, child no better; ordered bismuth, salicylic acid, soda bicarbonate in mucilage. August 31st, child well, passages neutral.

August 17th. Seventeen months; continual stools, yellow, watery, and vomiting; tried sulphuric acid mixture with no effect, replaced it by alkaline mixture; child reported as well.

I have endeavored to show that the treatment of the diarrhoeas of children is not altogether an empirical one, as would be supposed from reading the many journal articles of the day. The choice between the acid and alkaline treatment is based upon thorough scientific principles, which leaves the practitioner very little room for doubt which form of treatment will be the most serviceable in each particular case. If my report, the result of investigation of over a thousand cases, coincides with that of others of the profession, my labors will not go unrewarded.

22d and Locust streets, Philadelphia.

HOSPITAL REPORTS.

JEFFERSON MEDICAL COLLEGE HOSPITAL.

CLINIC OF PROF. GROSS, OCTOBER 2d, 1878.

Pathology and Treatment of Scirrhus of Mammary Gland.

GENTLEMEN.—Amelia T., aged forty years, comes to us with an affection of the right mammary gland, of which the following history has been elicited by my assistant: About two years ago she first noticed, in the substance of the breast, a small, hard lump, about as large as a common marble. There was no pain in the growth, and she discovered it accidentally. Since that period the growth has slowly increased in size, the overlying skin finally becoming reddened and inflamed, and about seven weeks ago it broke down into the ulcer which she now presents for our inspection. During the development of the disease, the breast became the seat of dull, aching pain, extending into the axilla and across the chest. She is losing flesh, her appetite is poor, and her strength has greatly failed in the progress of the disorder.

You observe, upon the upper and outer aspect of this poor woman's breast a small, irregular, ulcerated surface, exuding a thin, sanious fluid. The surrounding skin is discolored, and the edges of the ulcer are ragged and undermined.

Grasping the gland we find that the diseased portion is movable, and evidently is not attached to the aponeurosis of the great pectoral muscle, lying immediately beneath it. The tumor is dense and inelastic; it is decidedly hard throughout its entire extent. Notice the retraction of the nipple. A morbid deposit has here taken place, which has completely involved the substance of the mammary gland. Indeed, upon exploring the axilla, I find some lymphatic glands that are evidently undergoing a similar process of degeneration by migration and infiltration of cells.

The diagnosis of this case will be sufficiently easy for those of you who have already been in attendance upon my lectures. There is no doubt whatever, that it is a case of scirrhus of the mammary gland, hard carcinoma as it is sometimes called, a variety of cancer frequent among women, less so in men. Its cause is obscure; it has been supposed to be connected with some alteration in the constitution of the blood, but in the great majority of cases it arises without any assignable cause whatever. Generally making its appearance after the fortieth year of age or between forty and fifty-five, it occasionally is met with before this period, at the age of thirty-five or even twenty-five, and it is said to have been encountered in the mammary gland of the virgin before puberty; this, however, must be uncommon. In advanced life, also, it is less often met with, though I have seen it occasionally after the age of seventy. The disease may originate near the surface, in which case there will be comparatively early involvement of the skin; in other cases it remains for a long time in the glandular structure, making very slow progress toward the superficial parts. The lining membrane of the tubules may be the part originally at fault, or it may arise in the interlobular areolar or connective tissue, and lymphatic vessels. In some cases it involves the entire mammary gland at a comparatively early period; the deposit around the milk ducts causes contraction, and produces the characteristic depression of the nipple, to which I have called your attention. At first the overlying skin is perfectly natural in its appearance, but ultimately the disease, in its course, invades the lower layers of the derm, and by disturbance of the circulation and plastic deposit, produces discoloration, inflammation and finally ulceration, from interference with the nutrition of the skin. The ulcer thus produced has a peculiar appearance, as if scooped out with a punch, having thick, irregular edges, generally everted, though sometimes turned in. The surface has an unhealthy appearance, being covered by spoiled or caco plastic lymph, or plasma entirely unfit for purposes of repair, or the development of granulations. The ulcer sometimes bleeds, but rarely to any noteworthy extent. The irritating secretion flowing over the external skin causes redness and excoriation if continued, and the surrounding parts become thickened by plastic deposit. The disease may invade the aponeurosis of the pectoral muscles, or follow-

ing the course of the lymphatic vessels, may invade other organs, particularly the axillary lymphatic glands. The pain is characteristic; it is sharp and throbbing, even lacerating, worse at certain times in the day than it is at others, liable to be influenced by the weather, coming on in paroxysms, or it may be persistent. At first it is limited to the affected breast, but afterward it radiates into neighboring structures, sometimes shooting down the arm all the way to the tips of the fingers. It finally becomes so severe as to require large doses of anodynes for its relief. The enlarged glands in the axilla may seriously interfere with the circulation of the arm by mechanical pressure upon the blood vessels and lymphatics, and thus produce great cedematous swelling, and almost completely destroy the usefulness of the limb.

The secondary disease may be limited to one of the axillary glands, but there are generally more, sometimes forty or fifty, hard, firm and tender, the absorbent vessels from the breast having carried the cancer cells to this place. As the affection progresses and the corresponding arm becomes heavy from infiltration with serum, the pain and discomfort greatly increase, and the sufferer cannot rest either by night or day. The diseased parts become the seat of constant pain. The patient's mind, from constantly dwelling upon the subject, is so tortured with apprehensions for the future that she is utterly unfit for the ordinary occupations of life. The tumor, so hard at first, finally becomes soft and juicy at its centre, and commences to disintegrate. Under the microscope, a section of the growth presents an immense number of cancer cells, which are characteristic in their appearance. Many of them are circular; a few are ovoid in shape, sometimes irregularly lanceolate. They lie in a fibrous network or stroma, and are distinguished by the presence in their interior of large nuclei and nucleoli.

Now, as regards treatment: the stage of the disease will require our consideration. All that we can do in the advanced condition, with extensive secondary involvement, is to palliate and relieve suffering, make the patient comfortable by attending to the general health, and secure sleep and respite from pain by giving anodynes. A carefully regulated diet should be used, simple but nourishing in its character, so as not to burden the stomach. Attention should be paid to the secretions. The bowels should be kept moderately open by enemata or mild laxatives. Tonics are generally indicated. Quinine, cinchona, tincture of chloride of iron, and milk punch or other stimulants, may be needed to assist in sustaining the system. The pain is sometimes intolerable, and morphia must then be exhibited in sufficient doses to relieve it.

As to topical applications, we have no specifics, and a solution of the acetate of lead, half an ounce to the pint of water, will answer every purpose. It is applied on cotton wool or light flannel, which may be wet several times a

day, covered with oiled silk or waxed paper; it will soothe and allay the pain.

As regards operation, when the disease is in its later stages, as a rule, it should be let alone. The case before us is very unpromising, but it is evident that the patient's life is rendered miserable by it, and if we decline to operate it will so prey upon her mind as to unfit her for any duty. There is, therefore, good reason for operating upon this woman, to afford her temporary relief from pain and foul discharges, by removing all the malignant growth that we can find in the breast and axilla. At the end of a fortnight the wound will heal up so that she can go about her work. The disease may not return for six months, and during this period she will be comparatively happy. She may not have her life actually prolonged by the operation, as she may live just as long without it. But this disease is a thorn in her flesh, and as long as it is present she will suffer. She shall be cared for in the ward until the next clinic day, when I will amputate the breast.

Disease of Tongue—Epithelial Cancer vs. Mucous Tubercle.

You will notice this white, roughened spot on this man's tongue, on the left side, near the margin. It looks as if it had been recently touched with nitrate of silver, and, indeed, Dr. Hearn now informs me that caustic actually has been applied this morning. We will not, then, lay any stress upon the color, but will inquire into the history of the case, to seek to determine the character of the disorder. Twenty-two years ago the patient had a chancre, not followed by bubo or sore throat. He thinks this spot came on his tongue about two years ago; it has not materially increased in that time, and is not painful.

This looks very much like a mucous patch, such as we often find on the lips, tongue, and other mucous surfaces in certain subjects, as one of the results of syphilis. But I have never seen a mucous tubercle continue unchanged through so long a period as two years, and, therefore, we have a doubt entering into the diagnosis. One of two affections it must be, either a mucous tubercle or epithelial cancer of the tongue. As it is difficult to decide this question, we will institute treatment with a view to develop the diagnosis. I shall put this man upon specific treatment for constitutional syphilis, and if, as I have supposed, the affection is simply a mucous tubercle—as it seems to be, although its history would lead us to believe differently—I will expect decided results from the following treatment: I shall order that this man shall take ten grains of iodide of potassium and one-eighth of a grain of bichloride of mercury three times each day, in some simple syrup and water. The syrup of ginger will answer very well for the purpose. The iodides of potassium, sodium, or ammonium, are almost a specific in some forms of syphilis, and are about equally efficient. I generally aid their alterant, and corroborant effects

by adding a small proportion of mercury. The mixture should be given after meals. Locally I will direct acid nitrate of mercury, diluted with water—one part to twelve—to be applied by means of a camel's hair brush, once in the twenty-four hours. Should the affection prove to be of a syphilitic character we shall be able to make a decided impression upon it in the course of a week or ten days. If the treatment prove of no avail I shall conclude that it is epithelial cancer. There are no enlarged lymphatics under the jaw, but should one be found it would not aid the diagnosis, for they occur in cancer as well as in syphilis.

The patient's diet must be restricted; he must eat very little meat. If this man had told me that this affection had existed only for a week or two I should have had very little hesitancy in announcing my diagnosis.

Constitutional Syphilis.

William K., 46 years of age, has several ulcers upon the upper lip. He says that he never had a chancre, but he had gonorrhoea twelve years ago, followed by orchitis. These ulcers have troubled him for a month; they give him considerable pain, particularly at night. His appetite is good, and his general health is not impaired. Examining his mouth, I find that the tongue is clean, but there are unmistakable mucous patches upon the tonsils. Now I have no hesitancy in saying that this is a case of syphilis. We cannot elicit an accurate history, but the appearance of the multiple ulcers is characteristic. The patient a few moments ago acknowledged having had a discharge from the urethra, which may have been produced by a urethral, a masked chancre. Or, as not infrequently happens, he may have had a small Hunterian sore on the foreskin, which gave no annoyance and escaped his notice. However acquired, originally, we have the evidence before us of general syphilitic poisoning of the system. I have no hesitancy in saying that these sores on the lips accompanied by the mucous patches on the tonsils remove every doubt in the diagnosis. You will recall his statement about the pain being worse at night. This is a peculiarity of syphilitic affections, especially in the tertiary form, which generally comes on from six to twelve months after the primary sore. In such cases you will find, upon inquiry, that, as a rule, the pain is worse at night than in the daytime.

There is another point in the case which requires our attention before putting him upon specific treatment; it is the condition of the alimentary canal. His tongue is not coated, digestion is well performed, and the bowels are regular.

We shall, as in the preceding case, put him upon ten grains of iodide of potassium, and one-eighth of a grain of bichloride of mercury. At night he shall have two grains of solid opium, for the purpose of relieving pain, until he experiences a beneficial effect from the alterative, which will be in the course of four or five days. To the sores we shall apply nitrate of lead, ten

grains to an ounce of water, on a piece of soft lint. This will relieve pain and cause healthy granulations to spring up, and promote healing. The diet must be nutritious but not stimulating. He must keep his room and get as much sleep as he can. I restrict the diet where the syphi-

litic patient is plethoric; on the other hand, if he is broken down in health, is cachectic, and losing strength and flesh, I generally put him on the use of a nourishing diet before instituting the specific treatment.

(To be Continued.)

EDITORIAL DEPARTMENT

PERISCOPE.

Therapeutic Results with Pilocarpin.

The results of recent investigations are here summed up. Dr. Demme, of Berlin (London *Medical Record*), arrives at the following conclusions:—

1. Pilocarpin is an effective diaphoretic and sialagogue in childhood.
2. It is borne very well, in appropriate doses, even by children of very tender years.
3. Unfavorable after symptoms are but rarely observed, and, probably, may be altogether prevented by the administration of small doses of brandy before the injection.
4. The conditions in which it is chiefly indicated are the parenchymatous inflammations of the kidney, with dropsy, following scarlatina.
5. Pilocarpin does not appear to exercise an influence on the heart's action.

The *Hospital Gazette* states that an important physiological effect of pilocarpin, according to Dr. Zielewicz, of Posen, is its power to reduce animal heat. He has observed a decrease of temperature amounting to as much as 2, 2½, and even 3 degrees, averaging, however, 1 to 1½ degrees. In very few instances there was a slight increase of the temperature. Again, it seems doubtful to me whether the diminution of the temperature can be attributed primarily to the action of pilocarpin, or whether it is not due to, and only temporarily caused by, the evaporation of the perspiration. Zielewicz arrives at the following conclusions:—

1. Pilocarpin is a reliable diaphoretic in the diseases of children.
2. The unpleasant symptoms which occasionally follow the administration of this remedy interfere with its more general use.
3. To eliminate or diminish these complications the following rules should be observed:—
 - a. The dose of pilocarpin should be as small as possible.
 - b. A small amount of morphia should be administered with the pilocarpin, best in the proportion of ten pints of hydrochlorate of pilocarpin to one pint of hydrochlorate of morphia.
 - c. To prevent collapse a few drops of camphorated oil should be added to the solution.

Dr. Felsenreich, assistant to Prof. Gustav.

Braun at the Vienna General Hospital, observes that Dr. Massman's statements (*Medical Times and Gazette*, July 13th, p. 56) on the employment of pilocarpin in the induction of premature labor must lead to further inquiry into the action of this substance on the uterus. At Professor Braun's request he tried its efficacy in nine cases of ataxy of the uterus, with reference to its future employment in cases of hemorrhage produced by this cause. In but three of the cases did the hypodermic injection take effect, and that only at the end of ten minutes; so that it cannot be regarded as a suitable means for combating active hemorrhage, in which promptitude of action is so important a factor. As in these cases, too, there is no time to examine the action of the heart, another contra-indication arises, for, as Petrina has shown, whenever this action is in any wise abnormal, the greatest care is required in the administration of pilocarpin, for arrhythmia or an arrest of its action may then be easily induced. Indeed, as any considerable hemorrhage does greatly disturb the action of this organ, this itself is a contra-indication. These considerations do not apply to the induction of premature labor, and additional trials of the power of pilocarpin for this purpose may be made without danger.

Dr. P. K. Kretschmar adds, in the *Hospital Gazette*, that the *Hydrochlorate of Pilocarpin*, derived from the alkaloid found by E. Hardy in the leaves and in the root of *pilocarpus pinatus*, is, in many respects, the most valuable of the preparations of *jaborandi*. It comes in small, white crystals, very soluble in water, and is for different reasons especially adapted for *hypodermic* medication. Its action resembles that of the drug itself, but it is *more uniform* and reliable than either the infusion or the fluid extract. It also influences the bronchial secretions by making them more fluid, and it has been used with advantage in croup, bronchitis, etc. A solution is made by dissolving ½ grain of hydrochlorate of pilocarpin in 30 minims of pure water. I use in cases of children from six to ten years of age, 10 minims of this solution, 1½ gr. hypodermically, and repeat the injection once or twice the next or following day. To adults I have given 20 minims (½ gr.) repeated every day for three days.

The simplicity and almost painless manner of its administration, the fact that its hypodermic use does not cause any irritation, or abscess at the point of injection, the easy manner by which we are able to administer it in a state of uræmia, unconsciousness during convulsions, etc., make it a most valuable remedy in the treatment of children. I used it in five cases of parenchymatous nephritis following scarlet fever, four of which occurred in children under twelve years of age, and I can only state that its action was very satisfactory, although it produced considerable vomiting in one and moderate emesis in another case.

Harmlessness of Urea in the Blood.

The London *Medical Record* mentions experiments by MM. Feltz and Ritter, to show that pure urea never brought on convulsive symptoms. Urea injected into the blood was eliminated very rapidly by the urine, and when it existed in considerable quantities in the organism it did not, as generally supposed, undergo a rapid transformation into carbonate of ammonia. Dogs into which urea was injected, after the renal vessels were tied, to prevent the rapid elimination of the poison, showed no more marked convulsive symptoms than others in which the same ligature was made without the injection. The convulsive symptoms observed with urea were produced by an impure substance containing ammoniacal salts. The authors summed up in the following conclusions:—1. Pure urea, whether natural or artificial, injected into the venous system in large quantities, never brings on convulsive symptoms; it is rapidly eliminated by the secretions. 2. There are no ferments in the normal blood which convert the urea into ammoniacal salts. The rapidity of elimination cannot be regarded as the cause of this non-conversion, for by the suppression of the renal secretion the elimination of the urea may be retarded without accelerating the supervention of the eclampsia. The urea which in large doses brings on convulsions is always impure urea which contains ammoniacal salts, which are easily shown to be present by Nessler's reagent.

Why Physicians Should Use the Metric System.

Dr. Edward Wigglesworth gives the following reasons, in a recent circular:—

Because this system most nearly approximates to a perfect one, embodying, as it does, the most careful and delicate work of the International Metric Commission, composed of scientific men from all countries. Because it is *international*; and medicine is as cosmopolitan as human nature itself.

Because of its great *convenience* in writing and compounding prescriptions, in dividing doses and in computing quantities required during given times. Because of its *safety*, due to its *uniformity and simplicity*. It may be learned in five minutes. In complexity there

is always danger, and the resemblance of the signs of the scruple, drachm and ounce has more than once proved fatal to human life. The metric system dispenses with the signs of the quantities, employs Arabic figures instead of Roman numerals, and assures the physician of more competent service, because from more educated pharmacists, such being always the first to adopt it. It is decimal, and a perpendicular line instead of the decimal points obviates any possibility of error from this source. It is allied to the change already made by Americans, from pounds, shillings and pence to dollars and cents.

Because of its *delicacy and accuracy* for the chemist and the pharmacist; and here the beauty of the system is especially apparent, for it provides denominations of weights applicable to the smallest quantity which the physician can prescribe, the old grain being by far too large and coarse a unit for modern medicine.

Moreover, the English and American graduates are both in use in this country, and yet are not alike. There is a difference of eighteen grains in the weights of their fluid ounces. Then, too, if *f* is omitted before the ounce symbol, either the graduate or the troy ounce may be used.

Finally, because it deals preferably with weights alone, *while admitting the use, if desired, of both weights and measures, as at present.*

REVIEWS AND BOOK NOTICES.

NOTES ON CURRENT MEDICAL LITERATURE.

—One of the strongest and most pointed papers we have ever read on the iniquity of the existing laws about malpractice, is by Dr. Eugene F. Sanger. It was read before the Maine Medical Association, and we earnestly commend its perusal to thinking men who are not willing to be the prey of worthless patients and common barrators. To be had of the author, Bangor, Maine.

—Dr. Walter Coles, of St. Louis, in a reprint from the *St. Louis Medical and Surgical Journal*, reviews, with trenchant criticism, Dr. Hammond's recent paper on "Hepatic Abscess." Dr. Coles has undoubtedly picked some flaws in Dr. Hammond's references and quotations. But when he assails the general correctness of Dr. Hammond's principal statement, to wit, that hepatic abscess is much more frequent than is generally supposed, and that it often exists with masked symptoms, he certainly carries his attack too far. There has

been a considerable mass of evidence offered to this direct effect, by numerous independent observers, within the last year. Another point, and a very important one, on which Drs. Hammond and Coles differ wholly, is whether aspirating the liver is dangerous or not, providing it is done skillfully, with caution, and at the proper point. Under these circumstances, Dr. Hammond says it is wholly without danger, and after perusing carefully what Dr. Coles says, we do not think he successfully contradicts the New York professor.

—Messrs. Baillière & Cox, of London, publish Mr. Lennox Browne's "Forms for the taking of Throat Cases and Aural Cases," with drawings, outlines, etc.; a very convenient arrangement. Price, in books of 25 forms, 3 shillings, 6 pence.

—The Twelfth Annual Report of the Home for Incurables, Fordham, New York, gives the present condition of an estimable charity. Of 89 cases the large number of 17 are stated to be epileptic mania. The physician's report is disappointingly meagre.

—In a reprint from the *Gynecological Transactions*, Dr. H. P. C. Wilson recommends sub-sulphate of iron as a valuable antiseptic in the surgery of the pelvis. He states that he has found Monsell's solution to be soothing rather than irritating to the surface of wounds.

—A curious fatal case of poisoning by wormseed oil f3iss is related by Dr. T. R. Brown, of Baltimore, in a reprint from the Maryland *Medical Journal*. The patient became aphasic.

—A study of pathological histology, with numerous original engravings, by Dr. A. R. Robinson, of New York, is the subject of a reprint from the New York *Journal of Medicine*.

BOOK NOTICES.

Practical Surgery: including Surgical Dressings, Bandaging, Ligations and Amputations. By J. Ewing Mears, M.D., Demonstrator of Surgery in Jefferson Medical College, etc. Philadelphia, Lindsay & Blakiston, 1878. 1 vol., cloth. Small 8vo, pp. 279. 227 illustrations. Price \$2.00.

The author of this work has had an extended experience as an instructor in operative surgery and in the details of minor surgery; and

the volume he has written is one which he found students to stand in need of, because no single work in the market teaches just what is required by those pursuing these branches. He has grouped under the four heads mentioned in his title a very carefully arranged statement of all the chief facts relating to each of these branches. Turning, for instance, to antiseptic dressings, we find Lister's method succinctly described in something less than five pages. Three pages, with appropriate illustrations, are given to Sayre's suspension apparatus. The directions for ligation and amputation are given in the fewest possible words, and are explained with reference to numerous wood-cuts. The operations described are not numerous, but we are inclined to believe that the author's selections will meet with the general approval of surgeons.

Notes on the Treatment of Skin Diseases. By Robert Liveing, A.M., M.D., F.R.C.P., London, etc. Fourth edition, revised and enlarged. New York, Wm. Wood & Co., 1878. 12mo, pp. 127.

Dr. Liveing has a prominent reputation as a dermatologist, and though his book represents an older school than that now prevalent, and though he has made but few changes to bring it into accordance with the opinions of younger men, it has had and still maintains a considerable popularity. It is small, and in these days of prolixity, that is attractive. We observe he says nothing of chrysophanic acid, salicylic acid, gurgun oil, and the other new remedies in skin diseases. Therefore we are forced to say that his book lacks considerable of being "up to the times."

The Medical and Surgical Directory of the State of Iowa, for 1878 and 1879. By Charles H. Lothrop, M.D., Clinton, Iowa. 1 vol., cloth. 8vo, pp. 154.

It would be an advantageous movement for the profession of every State to issue yearly, or every other year, an Official Directory of all physicians in good standing in their limits. This one, that we owe to the labors of Dr. Lothrop, might serve in most respects as a sample of what would be useful. It contains the medical laws of the State, a list of its medical schools, charities, societies, etc. Obviously it is the result of a great deal of labor, and we trust it will be continued in the future.

THE

Medical and Surgical Reporter.

A WEEKLY JOURNAL,

Issued every Saturday.

D. G. BRINTON, M.D., EDITOR.

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1879.

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THE CHINESE QUESTION.

In the number of the REPORTER for September 14th we criticised the position taken by some of the profession of the Pacific slope on the Chinese question. In so doing, we inadvertently left our readers to suppose that all the medical journals of that section shared the opinions we censured. This impression we desire to correct, and do so most cheerfully.

The *Pacific Medical and Surgical Journal*, edited by Dr. HENRY GIBBONS, and Dr. HENRY GIBBONS, Jr., not only holds views wholly at variance with the hoodlums and Kearneys, but has expressed them, and stood true to the lights of science and the doctrines which this country claims as its own. We should have distinctly excepted it from the charges we made, and do so now.

It is a pleasure to add that what we then said has directed the attention of several readers to the subject, and to the expression of several personal opinions in favor of justice to the Chinese emigrants.

It appears that the total Chinese population is at present 32,000. Most of these are servants, tailors, shoemakers and laundrymen. The total number of women is less than 2000. Postmaster General KEY, who is both an able and an unprejudiced observer, has lately returned from a visit to California, during which he took especial pains to study the Chinese. His words are—

"They are docile, obedient, obliging, punctual, hard-working and faithful. They are exceedingly thrifty and economical. They are temperate in their habits, do not drink liquor of any kind, eat very little meat, and live almost entirely on rice. It is wonderful to see how little a Chinaman can live on. Their economy struck me as something marvelous. Large numbers of them sleep in a single, ill-ventilated room. They constantly violate the fundamental laws of health, and yet they are seemingly very healthy. I was astonished to learn that they had no hospital. I was shown through the Chinese quarter of San Francisco by the Mayor, and saw everything in that locality, but there are a number of places here in Washington fully as bad, if not worse, than anything I saw in China town. I also observed that the railroad companies employed a large number of

Chinamen, and found them excellent workmen."

In reference to the matter of ventilation, a characteristic trait of "American civilization" is reported. The San Francisco authorities passed a law that every lodging room should supply at least five hundred cubic feet of breathing space to each lodger. It was directed solely against the Chinese, and was executed only against them. A large number were arrested and packed in cells so closely that each inmate had *less than 250 cubic feet of space!* What a commentary on those whom the *Western Lancet* wanted to enlist in a crusade against these poor foreigners!

That their sympathies are so little susceptible to appeals for charity we cannot believe, when we see authentic statements that not only have they subscribed liberally to relieve the famine now prevalent in their own land, but have sent a handsome sum to the yellow fever sufferers of the Mississippi Valley.

We close with an extract from a letter from Dr. R. B. BONTECOU, of Troy, New York, who speaks from late personal observation.

"Permit me to thank you, as one of the profession, for your just and much needed remarks in defence of the "Chinese," in the journal of September 14th. I have been traveling, during the summer, through the territories of Dakota, Montana, Idaho, Wyoming, and Utah, and have had some opportunities to observe that class of emigrants, for they are almost universally employed in those countries as domestics, and very many in mining. It is true that the other inhabitants hold them in contempt, amounting to hatred, and a Chinaman seems to have no rights that others are bound to respect. To me this state of things is incomprehensible when I observe how peaceful and industrious they are, and how much honest labor they give to their employers. It is conceded by the people there, that a Chinaman will give a better day's labor than any other man, and still they hate them, although they are indispensable to the community. I have taken care to observe them closely, and I was unable to learn that they were afflicted with any diseases not common to other classes of community, and, as a rule, are healthy, and the percentage of sickness small among them. I need not assure you that they are excellent servants and cooks, as well as field laborers and miners, often getting good returns from soil which had been worked over and abandoned as worthless by other men. For

my part, I wish there were millions of them scattered through the States, to set examples of industry and orderly conduct to the masses."

NOTES AND COMMENTS.

Atkinson's "Physicians of the United States."

The editors of the *Ohio Medical Recorder* have sent us a reprint, in pamphlet form, of a review and editorial devoted to Dr. Atkinson's "Physicians and Surgeons of the United States" (noticed in the *REPORTER*, May 4). It is very unusual for the review of a book to be thus reprinted and distributed by a journal, and suggests some motive quite as unusual. On examining the paper, both review and editorial, especially the latter, turn out to be most bitter and acrid attacks on Dr. Atkinson personally, and the severest reflections on the class of works of which his is an example. Now, any unbiased man will see very much to praise in works devoted to contemporary biography; for years, hardly a volume in our library has been more useful to us than the "Dictionnaire des Contemporains;" and we never knew one who owned the book to disparage it. Dr. Atkinson's work has had the approval, endorsement and direct aid of hundreds of the best men in the profession; and from a more than ordinary knowledge of the labor, responsibilities and difficulties he had to contend with in selecting and collecting for his pages, we can render personal testimony to its good judgment, tact and discretion. Of course, in a work of 800 pages and 2200 biographies it is easy to pick out many points which ought to have been amended; and the cheapest of all criticism is that by ridicule; but a reviewer who does nothing but this, and indulges in a tirade of personalities, cannot gain much credit among dispassionate and intelligent men.

On Cod-Liver Oil.

Dr. Theodore Huseman, quoted in the *American Journal of Pharmacy*, denies the presence of any particular active principle curing scrofula and lung diseases, and believes that its efficacy is entirely due to the mixture of the glycerides of fatty acids, it differing, however, from other oils in being absorbed and in oxidizing more quickly in the human body. He states, on the authority of Professor Almén, who has devoted many years to the analysis and study

of the different kinds of cod-liver oil of commerce, that a nearly white oil may be made by heating fresh cod livers, previously cleaned and washed, in well-tinned kettles, by steam, decanting the exuding oil, straining it and exposing it to a low temperature; on conveying it afterward to a warm room, all stearine will crystallize and settle. The oil should then be decanted, bottled and sealed, and may be kept for six years without becoming rancid.

The Skulls of Women.

M. Lebon, in a communication made to the Congrès d'Anthropologie in Paris, pointed out that, while the relative volume of the skull, compared with the rest of the skeleton, has increased with the progress of civilization, the difference in size between the skulls of men and women is also much less in the savage than among the civilized races. This difference was admitted by the ethnologists present, and was explained by the President, M. Broca, on the ground that among the primitive races women led much the same lives as men, and took an equal part in the struggle for existence. According to these anthropological data the "protection" of women and their exclusion from professional struggles has ended in lessening the cranial capacity, therefore presumably the brain-power.

Poisonous Mushrooms.

A newspaper paragraphist, speaking of the resemblance of edible to poisonous fungi, said that about the only way to recognize them is that if you are living next day they were mushrooms, if not, they were toadstools.

The *Pharmaceutical Journal* points out that, although there are many fungi which form excellent food, yet most of them have, so to speak, poisonous twin brothers so like them that only the practiced eye can distinguish them. Thus the delicious *Lactarius deliciosus*, the taste of which has been likened to lamb chops, has a poisonous counterpart in the *Lactarius torminosus*, which is only distinguishable by the downy or hairy margin of the cap and the white, milky juice. The pretty yellow chanterelle (*Cantharellus cibarius*), which possesses an odor of apricots, is parodied by the *Cantharellus aurantiacus*, differing only in its smaller size and in having the gills of darker color than the cap, and the *Boletus edulis* is mimicked by several other species of *Boletus*, in most of

which, however, the flesh of the cap turns blue when broken. Meanwhile, it is well to remember that the antidote for mushroom poisoning is daturine, and that, according to Professor Schiff, it is a very complete one.

Chloral as a Revulsive.

This is the subject of a paper in the *Bulletin de Therapeutique*, No. 94, by Dr. H. Peyraud. Made into a mass with gum tragacanth, spread on paper and applied to the skin, it will produce a blister without pain. Applied as a powder, on cotton, it causes a painful burning sensation. By the former method, a portion is absorbed and the patient falls asleep. Its action is not so uniform as cantharides, but as a mild vesicant, or an agreeable revulsive, the author quoted would commend such "chloral paper" to physicians, the more so as it will keep for months without losing its activity, if well prepared.

An Excipient for Pills.

A new excipient for pills is recommended in the last number of the *American Journal of Pharmacy*. It was suggested by Mr. W. J. Martin, of Cincinnati. Its only disadvantage, seemingly, is color, it producing with white powders a colored mass, which, with quinia and similar alkaloids, may preclude its use, since it is the fashion to have these prepared as light colored as possible. The excipient recommended by Mr. Martin is made by taking one part of powdered gum tragacanth and seven parts of powdered elm bark, and using either water or syrup, preferably the latter, to make the excipient of the requisite plasticity.

Thymic Acid and Sulpho-Thymate of Soda.

A therapeutical study of these substances has been published by Dr. V. Cozzolino, in the *Giornale delle Scienze Med.*, of Naples. Thymic acid has been advantageously employed locally in diphtheria, and is superior to carbolic acid for this purpose, as it is much more agreeable to the patient, and does not produce nausea. For ozæna Dr. Cozzolino considers it the best article he has tried; he uses an emulsion with gum arabic, one part of the acid to one thousand of emulsion, and injects the nostrils. Combined with unguentum petrolei, or dissolved in alcohol and glycerine, he applies it in favus, tinea, herpes, pityriasis, etc. In gastric catarrh from ferment, putrid diarrheas,

intestinal mycosis, and the like, he gives it internally with excellent results. He also praises the sulpho-thymate of quinia as an efficient antiperiodic.

The Management of Hysteria.

In a recent paper, Dr. Risel, of Messeberg (*Allg. Med. Centralzeitung*, Oct. 9th) criticises the view that hysterical symptoms generally arise from genital disturbances. More frequently, he says, they are reflex neuroses. This is important to remember in treating such cases, the more so as the reflex phenomena tend to obscure the primary irritation. In very severe cases protracted chloroform inhalation will sometimes cure. Thus, a lady with a violent cough was chloroformed for fourteen days at every access of the cough, and another for eight days. In both the symptoms were conquered.

Administration of Salicylic Acid.

Dr. R. B. Bontecou, of Troy, N. Y., writes us, recommending the following form for administration of salicylic acid. He has for two years used it, and is pleased with it:—

R. Acidi salicylici, ʒiij
Potassæ acetatis,
Glycerinæ,
Spts. etheris nitrosi, aa ʒj. M.

One teaspoonful represents 11 $\frac{3}{5}$ grains of the salicylic acid and half a drachm of the potassa, which may be given to an adult with acute rheumatism every two, three or four hours, diluted in water.

Prize Essay on Masturbation.

The *Virginia Medical Monthly* announces a prize of \$25 for the best essay on this subject. The paper must set forth the evils, from a medical standpoint, in the most forcible style, and must be adapted to the comprehension of youths of twelve years of age and upward. The paper must be in before February 1st, 1879. Address "A B," Randolph Macon College, Ashland, Va. The paper selected will be printed in a pamphlet form and distributed gratis in all the boarding schools of the State, and as far as practicable, among all other youths.

This is well, but extreme caution should be used not to overdo a good thing. Sir James Paget maintains there are no peculiar dangers attending masturbation, other than its frequency; and in a pretty extended practice

among young men we must say that we have had to treat far more who suffered from unfounded fears of the evils they imagined this habit had engendered, than who really showed bad effects from it.

CORRESPONDENCE.

The Regular Education of Homœopaths.

ED. MED. AND SURG. REPORTER:—

The editorial article headed "Recent Discussions about Homœopathy," in the *REPORTER* of October 19th, contains a criticism of the proposed amendment to the Constitution of the American Medical Association, which seems to me just and pertinent. The adoption of this resolution would, in my view, render the Association justly liable to the charge of bigotry and exclusiveness.

If the object sought in this amendment be to place on record an authoritative expression of disapproval of the relation sustained by the medical faculty of Michigan University to the homœopathic college, then is the means ill-adapted to the end, because it embraces too much and fails to recognize an important distinction.

The mere imparting of instruction in rational medicine to students who are avowed believers in any exclusive system has never, as I know, been objected to in the discussions on homœopathy in the University, and I believe that all those who deplore the establishment of the present homœopathic college there would be no less pleased than yourself if all students who propose to become homœopaths, or pathists of any kind, would first pursue a regular course in some respectable medical college. Indeed, could this be accomplished the days of all one-idea systems in medicine would be numbered, for, under the illumination of a broad professional education, the "pathic" proclivities of such students would melt "like dew before the morning sun." "Avowed homœopaths," grasping principles deeper and more stable than the froth of a trivial symptomatology, and possessing themselves of weapons more tangible and puissant than infinitesimal nothings, spiritually potentialized, would inevitably elect a sound pathology and adopt a rational practice, even though many of them might, for the sake of popularity, write upon their signs the cabalistic "*Similia similibus curantur*."

What so many friends of the University did oppose, was the attachment of a homœopathic school in such manner that members of the regular medical faculty were made *de facto* members of the homœopathic faculty, being compelled, not only to instruct and examine homœopathic students, but also to furnish six of the eight certificates essential to their graduation as homœopaths, while, by arrangement of lecture hours, it was made impossible for these

students to receive instruction in materia medica and therapeutics, theory and practice, or surgery, from any but homœopathic teachers. Many of the alumni were not willing to see their alma mater thus prostituted to the base use of propping the tottering fabric of the Hahnemannian delusion.

Could an amendment be offered which, stigmatizing simply such relations of medical schools to quackery, would stand as the recorded verdict of the Association to warn other State institutions, I should vote for it, deeming its adoption to be an act eminently befitting the most august medical organization in the land, as indicating at once a proper consciousness of its own dignity, a strict sense of professional integrity, and a wise appreciation of its duty to the public, and to true physicians everywhere.

C. H. LEWIS, M.D.

Jackson, Mich., Nov. 4th, 1878.

Experiences in the Yellow Fever.

ED. MED. AND SURG. REPORTER:—

I take the liberty to submit to the readers of the REPORTER the following extract from a private letter from Dr. Gustavus B. Thornton, physician of the City Hospital, Memphis. Dr. Thornton says—

"During the whole of our past epidemic, from the first until I was stricken down by the disease, I was constantly on the go, with official and professional duties of the most exacting and continuous character. I have passed through the most terrible ordeal of my life. I flattered myself that a severe attack of yellow fever in '67 would give me exemption this time, and perhaps, was not as careful of myself as I should have been. However, I did nothing to induce the attack, beyond being constantly exposed to the disease, in the discharge of what I conceived to be a plain, official and personal duty. I feel satisfied that I would have passed through all right, had it not been that I was very much worried and prostrated, by the influence of the poison and pure physical and nervous exhaustion combined. There was no escape for me; I felt from the first that I had to live through or die in it. I could not think of leaving my post for one hour, nor, indeed, of neglecting any part of my duty while here. The disease was, undoubtedly, modified or changed in its character by my previous attack. It commenced in the same way, with the usual cold stage, not excessive, and lasting about three or four hours. After that the fever, which was not high, the thermometer not registering over 101½°, did not last more than about fifteen hours, when my temperature fell to the normal, and pulse between fifty and sixty, and on several occasions fell to 48. The poison expended its force on my nervous system, and caused, for about eighty hours, the most intense pains in the back, chest, extremities and joints I ever experienced; of course, to take opiates was out of the question, and I realized the fact that it was purely a question of endurance, whether I

could stand that pain while it lasted and then be in condition to react from it. For two days my attendants thought I was gone. Of course, I had every attention of physicians of my own choice, and two well disciplined and trained nurses. I dislike to think of this fearful illness, and do most sincerely thank an all-merciful Providence for my delivery from death, for the sake of my children, if nothing else. I am still excessively weak, and though this is the eighteenth day since I was taken, I am scarcely able to sit at my desk to write this. Of course, before bringing my children home from Russellville, Ky., where they were sent when the fever began, I shall take every precaution and have my house thoroughly disinfected.

"The mortality among the hospital corps was fearful. We lost one doctor, the druggist, the steward, and at least a dozen nurses, besides Dr. Lynn and myself, with a number of others attached to the hospital, having the disease and hardly escaping. Our wards, of course, were kept filled with the disease, and it seemed that the City Hospital was one grand focus for the yellow fever poison, and yet the sanitary condition of the place was as good, apparently, as it could be. No means of disinfection or cleanliness were neglected or relaxed, but the fact is, our whole atmosphere, for miles around, seemed thoroughly impregnated with this poison."

The newspapers of a later date than this letter report, "Dr. Thornton, who came near dying of the fever, was out on the street yesterday, hardly enough of him left to make a shadow. Like all convalescents, however, he was happy."

A single remark may be allowed, that the writer has had additional information from medical friends in New Orleans, viz.: that many convalescents have lost their lives after apparent recovery from yellow fever—true walking cases, described by Dr. Benjamin Rush, "with natural pulse and tongue." A single example will suffice. Mr. Godwin, a prominent merchant, deemed himself well after a slight attack, went out on the street, lunched at the St. Charles Hotel, danced for joy after smoking a cigar, fainted, had a relapse, black vomit, and is now hopelessly ill with symptoms of typhomalarial and yellow fever. This case is one among hundreds which have and will continue to occur during epidemics of yellow fever.

Salem, Va.

FREDERICK HORNER, M.D.

Question of Maternal Influence.

ED. MED. AND SURG. REPORTER:—

I take from the *Michigan Medical News* the following extract, which I do not think conveys the meaning I intended it should, and, as a consequence, does me injustice. "The MEDICAL AND SURGICAL REPORTER says: 'Financial doctors say the cause of the hard times is 'lack of confidence.' This was not the matter with a husband down South, whom Dr. R. L. Payne tells about in his address as President of the North Carolina Medical Association. He was speak-

ing of 'mother's marks' and gave this example: 'A black child was born to a white married woman in my county, and she accounted to her husband for its very dusky hue by assuring him that she had been terribly frightened by a negro man, who had presented himself before her in a half nude state. The husband was satisfied, and is still happy.'

The quotation is probably correct, but I certainly intended to have written the last sentence thus: *The husband was satisfied, and is still happy!!* And as the example was given immediately after quoting the case of Maria Thérèse, I intended to convey the idea that although I was a firm believer in "mother's marks," there might possibly be another way of accounting for the color in both instances, as well as in the case in Virginia, in which the child was black because the mother ate black walnuts! Respectfully, R. L. PAYNE, M.D.

Lexington, N. C.

Suggestions for Diphtheria, Acne, and Gonorrhœa.

ED. MED. AND SURG. REPORTER:—

Late in the fall of 1876, we had a short but sharp epidemic of diphtheria in this place. The last severe case occurred in my own person. I awakened out of my sleep in the night with an indescribable sense of suffering. Apparently every muscle in my body ached, comparable only to the severe pain of acute rheumatism, a throbbing headache, but only a slight sense of soreness in the fauces. I did not disturb my family or get up to do anything until morning, by which time the only change was an increase of soreness in my throat. By daylight and a mirror I saw the characteristic exudation on the tonsils; I swabbed this at once with the undiluted muriated tincture of iron, and then feeling a desire for an acid drink I dissolved at least 3j of citric acid in a common tumblerful of water, sweetened liberally, iced and drank it off at a draught, took a lump of ice in my parched mouth, and laid down. In about fifteen minutes the distressing alternations of chills and sharp flashes of heat, and constant, and exceedingly acute pains, located apparently in every tissue of my body, entirely ceased; I fell into a sound sleep, to be awakened in just three hours by a full and complete return of all my suffering. I repeated the dose of citric acid, swabbed out my throat, and experienced the same complete relief in just fifteen minutes, as before, and sleep, perfect and refreshing, followed, and awakened by pain. I continued this treatment, so accidentally begun, for two days, the intervals of relief growing longer, until the paroxysms of suffering ceased to recur. During those two days, I took over three ounces of the citric acid, and at the end of the time found the urine alkaline, but very copious. By the morning of the second day I had to dilute the muriated tincture of iron, as it produced too much smarting, as the exudation was now coming off in flakes, adhering to the swab. I have not had an opportunity to order

these heroic doses of citric acid in this malady since, for want of an appropriate case. If one's own sensations are to be trusted, and I fully believe mine were, the relief from pain was as full and complete as that following a dose of morphia, even where that drug acts the most kindly, but without its bewildering and numbing stupor.

I have lately read plans of treatment for acne, in the REPORTER; I herewith offer mine. Direct the patient to use common soda carb. (sal soda) freely in the water used for bathing the affected parts, and at the same time use any common soap freely. This will dissolve and remove the hardened and impacted sebaceous matter from the ducts of the follicles, dry the parts, and then freely apply the following lotion—

R. Acetici acidi, ʒiv
Glycerinæ, ʒiij
Aqua rosæ, ʒiiss. M.

Sig.—Apply locally, always after washing with the alkali and soap.

Also allow me to recommend this for constant use on the hands and face, to keep the skin soft and smooth.

With this prescription for acne I have attained considerable local celebrity in cleaning off the pimples from the faces of afflicted young persons. The druggist who habitually puts up my prescription sells gallons of this mixture to his customers, to keep hands and faces soft and smooth.

Now, another subject; what I believe to be a new plan of treatment for gonorrhœa:—

R. Tannici acidi, ʒj
Aque puræ., ʒvj. M.

Sig.—Inject as hereinafter specified.

Introduce a number 6 or 7 catheter beyond the point of soreness in the urethra, having had the patient urinate first, for the purpose of washing out the accumulated matter; direct him to make firm pressure on the tract of the urethra beyond the point of the instrument. Now take a common rubber bulb syringe, and, by means of a bit of elastic rubber tubing, connect the catheter and syringe, and wash out the urethra with cold water, in a thorough manner. Press the syringe bulb with force, so that the return current of water will flow out at the meatus, around the catheter, with considerable force. Finally, inject the tannin solution in the same way. Repeat twice a day, gradually weakening the solution of tannin.

With this plan faithfully carried out, I find the disease rarely, if ever, passes beyond the original site of the fossa navicularis, and it may sometimes be actually cured in three days. Stricture in the membranous portion of the urethra is thus avoided, because the disease is not allowed to invade it. If the urine is acid and irritating I order alkalies, as bicarbonate potassium, etc. Respectfully yours,

Greely, Col.

G. LAW, M.D.

NEWS AND MISCELLANY.

Epidemic Report for the Week Ending November 9th, 1878.

NEW ORLEANS.—There were 11 new cases of yellow fever, and 143 old cases, reported for the week ended yesterday evening. For the past twenty-four hours no new cases and 2 deaths. Quarantine raised on the 5th instant. Total cases 13,406, subject to revision. Total deaths 4010.

MORGAN CITY, LA.—There were 8 cases of yellow fever and 3 deaths during the past week. Total cases to yesterday evening 571, deaths 105.

MOBILE, ALA.—During the week ended yesterday evening there were 35 cases of yellow fever and 9 deaths. Total cases 259, deaths 68.

PASS CHRISTIAN, MISS.—7 new cases of yellow fever and one death for the past week. Total cases 196. Total deaths 21.

OCEAN SPRINGS, MISS.—For the week ended yesterday noon there were 4 cases of yellow fever and no deaths. Total cases 150, deaths 30.

HERNANDO, MISS.—10 cases of yellow fever and 5 deaths for the week ended November 2d. No cases and 1 death during the past week. Total cases 175, deaths 69.

DRY GROVE AND LEBANON CHURCH NEIGHBORHOOD, MISS.—Since October 19th there have been 13 new cases of yellow fever and 8 deaths. No new cases and but one death for the week ended November 6th. Total cases 125, deaths 52. Crystal Springs, Miss., near Dry Grove, has, so far, escaped the fever.

MEMPHIS, TENN.—During the past week there were 33 deaths from yellow fever. Total deaths to the evening of the 7th, 2997.

CHATTANOOGA, TENN.—9 new cases of yellow fever and 4 deaths during the past week. Total cases to yesterday evening 444, deaths 133.

CAIRO, ILLS.—During the two weeks ended yesterday there were 8 new cases of yellow fever and 3 deaths. The last case occurred on the 4th, and the last death on the 6th instant. Total cases 83, not including some doubtful cases. Total deaths 44. Heavy frost the 8th instant.

VICKSBURG, MISS.—There were 11 deaths from yellow fever during the past week. No deaths during the past twenty-four hours. 6 deaths during the week in the country near Vicksburg.

DELTA, LA.—4 deaths from yellow fever during the past week.

DECATUR, ALA.—During the week ended last evening there were 8 cases of yellow fever and one death. Total cases 196, deaths 43.

GALLIPOLIS, OHIO.—No new cases of yellow fever since October 26th. The last death occurred October 27th. Total cases 65, deaths 37, not including 6 deaths which occurred on the steamboat John Porter.

JAPAN AND CHINA.—Dr. Simmons, Sanitary Inspector for the Japanese Government for the port of Yokohama, reports under date of Octo-

ber 10th, that he regards the occasional reported cases of cholera in Japan during the past summer as cholera morbus, and not malignant or Asiatic cholera. On the 2d of October, however, malignant cholera broke out in Nagasaki, and in eight days there had been 58 cases and 10 deaths. Cholera has existed in Shanghai, China, for several months, and as Nagasaki is the first port of Japan entered by vessels from Shanghai, Dr. Simmons regards the outbreak as a new importation, but owing to the lateness of the season, and the sanitary measures instituted by the Government, he does not anticipate a spread of the disease.

International Congress of Superintendents of Asylums for the Blind.

Next spring, in Berlin, a congress of the superintendents of all the European asylums for the blind will be held, at the suggestion of Dr. Römer, to prepare a system by which a unity of methods of instruction may be obtained in all such institutions. It were desirable that the United States were also represented.

—The American Public Health Association hold their next annual meeting at Richmond, Virginia, commencing on November 19th. Unusual interest will attend this gathering, as much time will be devoted to facts connected with the yellow fever epidemic which has scourged so many Southern cities. The sanitary measures for preventing the recurrence of such a calamity will be carefully considered. This topic is of national importance, and there is hope that the deliberations of this body of scientific men may result in a clear understanding of the preventable causes of yellow fever.

OBITUARY.

DR. TILGHMAN H. MARTIN,

Of Allentown, Pa., died, Nov. 5th, of cerebral congestion. He was born December, 6th, 1800, and graduated at the University of Pennsylvania in 1831. His father, Dr. Jacob Martin, was also a physician, and he leaves two sons in the same profession. For many years he enjoyed an extensive and lucrative practice. He was a man of clear, keen, intellect, and of very handsome attainments in all departments of life. In his intercourse among men his friendships were unflinching, while his aversions were exceedingly sturdy, but on the whole his heart was full of generosity and kindness. He was a man universally loved, and his death is deeply regretted by all.

MARRIAGES.

DAVIS—HARDWICK.—On Thursday, Oct. 31st, 1878, at the residence of the bride's father, Wm. Hardwick, Hartford, Ky., Dr. Amos Davis, Pleasant Ridge, Ky., and Miss Lizzie Hardwick.

MCCLUNG—CURRY.—On Thursday, Oct. 31st, 1878, by Rev. J. G. Lowrie, at the residence of the bride's parents, S. H. McClung, M.D., of Mount Sterling, Ill., and Eleanor B., daughter, of Mr. J. R. Curry, Mount Sterling, Ill.